MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2017/2018

BTQ3894 – TQM FOR MANAGERS
(All sections / Groups)

12 October 2017
2.30 p.m. – 4.30 p.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 3 pages (inclusive of the cover page) with 5 Questions only.

2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please write your answers in the Answer Booklet provided.

Answer ALL. The marks allocation are stated for each question.

QUESTION 1

(a) Differentiate between internal and external customers.

[6 Marks]

(b) Explain the importance of using customer-related results as benchmarking data.

[8 Marks]

(c) A 50-volt battery must be between 55 and 45 volts when it leaves the factory. Two hundred samples of batteries have yielded the following data: average charge of 49 volts with a standard deviation of 2.5 volts. What is the process capability?

[6 Marks]

QUESTION 2

(a) Explain concurrent engineering and its main benefits.

[12 Marks]

(b) Process control requires that data be gathered in samples. Discuss random sampling and systematic sampling and provide examples of each sampling method.

[8 Marks]

QUESTION 3

(a) Explain the Ishikawa's **Seven (7)** basic tools of quality and how they can be used together?

[12 Marks]

(b) Define the term customer coproduction. Provide an example and describe the implications it has for service providers.

[8 Marks]

Continued...

QUESTION 4

(a) Discuss the main sources of team conflict and describe the **Four (4)** stages of the conflict resolution process.

[12 Marks]

(b) Outline the **Four (4)** stages of the generic process for performing self-assessment

[8 Marks]

QUESTION 5

(a) Discuss the **Five (5)** components of a quality system.

[12 Marks]

(b) Explain **Two (2)** main reasons why the effects of quality on business results are mixed.

[8 Marks]

Useful Formula

$$Cpu = (USL - \mu) / 3\sigma$$

$$Cpl = (\mu - LSL) / 3\sigma$$

$$Cpk = \min \{Cpu, Cpl\}$$

Where,

USL = upper specification limit

LSL = lower specification limit

μ = computed population limit

σ = estimated process standard deviation

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